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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,402	10/25/2000	Howard W. Fingerhut	BS00-189	2671

28970 7590 04/07/2004

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EXAMINER	
PHAN, TAM T	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 04/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/695,402	FINGERHUT ET AL.	
	Examiner	Art Unit	
	Tam (Jenny) Phan	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-87* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-87* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. No priority claims have been made.

2. The effective filing date for the subject matter defined in the pending claims in this application is 10/25/2000.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-87 rejected under 35 U.S.C. 103(a) as being unpatentable over Ennis, Jr. et al. (Patent Number 5,867,483), hereinafter referred to as Ennis, in view of Tams et al. (U.S. Patent Number 6,327,620), hereinafter referred to as Tams.

5. Regarding claim 1, Ennis disclosed a method of monitoring a packet-switched network using traffic logs (Abstract, Figures 1 and 11), comprising the steps of (a) creating a histogram file (Figures 13-16, column 4 lines 45-64, column 5 lines 13-22); (b) storing a traffic log generated by the network (Figure 10, column 2 lines 16-30); (c) determining the time of creation of the traffic log and its network entry and exit points (Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64).

6. Ennis taught the invention substantially as claimed. However, Ennis did not specifically teach (d) updating the histogram file using at least the time of creation of the traffic log and at least one of the entry and exit points.

7. Ennis suggested exploration of art and/or provided a reason to modify the method with the updating feature (column 3 lines 58-64, column 4 lines 45-54).

8. Tams disclosed a method of monitoring a packet-switched network using traffic logs comprising the step of (d) updating the histogram file using at least the time of creation of the traffic log and at least one of the entry and exit points (Figures 8 and 10, column 35-65).

9. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Ennis with the teachings of Tams to include the updating feature in order to appropriately capture data transmission system activity (Ennis, column 9 lines 11-15) since network traffic monitoring generally being done over the specified time interval (Tams, column 3 lines 44-45).

10. Regarding claim 2, Tams disclosed a method wherein the histogram file is a flat file, whereby direct and rapid access to stored data is effected (column 2 lines 16-30).

11. Regarding claim 3, Ennis disclosed a method wherein two histogram files are created, a first histogram being representative of traffic being passed into the network and a second histogram being representative of the traffic being passed from the network (column 4 lines 45-59, column 7 lines 23-52).

12. Regarding claim 4, Ennis disclosed a method wherein the histogram file is representative of traffic passing to a host connected to the entry or exit point (Figure 1, column 7 lines 18-40).

13. Regarding claim 5, Ennis disclosed a method further comprising repeating steps (b) - (d) for at least a predetermined period (column 4 lines 45-64, column 15 lines 31-45).

14. Regarding claim 6, Tams disclosed a method further comprising analyzing the traffic log to determine state information of a packet associated with the traffic log, and updating the histogram with the state information (column 7 lines 22-41).

15. Regarding claim 7, Ennis and Tams combined disclose a method wherein the histogram plots packets per minute versus time (Ennis, Figures 11 and 13-16; Tams, column 3 lines 44-52).

16. Regarding claim 8, Ennis disclosed a method further comprising broadcasting from a server computer data representative of the histogram to a client computer (column 15 lines 31-45). Tams also disclosed this limitation (column 6 lines 39-45).

17. Regarding claim 9, Ennis disclosed a method wherein the network is a packet network [Mobitex network] (Title, Abstract). (Note: Mobitex technology is a well-known packet data network).

18. Regarding claim 10, Ennis disclosed a method further comprising displaying a histogram based on data in the histogram file (Figures 11 and 13-16, column 6 lines 9-37, column 17 lines 6-24).

19. Regarding claim 11, Ennis and Tams disclosed a method further comprising creating at least one histogram for each host of the network (Ennis, Figures 11 and 13-16, column 17 lines 25-53; Tams, Tables 1-2).

20. Regarding claim 12, Ennis disclosed a method further comprising selecting for display the at least one histogram for a particular host (Figures 11 and 13-16, column 17 lines 24-53).

21. Regarding claim 13, Tams disclosed a method further comprising monitoring a central location of the network for new traffic logs (Figures 5-6 and 8, column 13 lines 19-42).

22. Regarding claim 14, Ennis disclosed a method of monitoring packet traffic through a node of a packet-switched network using traffic logs, comprising the steps of (a) creating a histogram file for at least one node in the network (Figures 13-16, column 4 lines 45-64, column 5 lines 13-22); (b) storing a traffic log generated by the network (Figure 10, column 2 lines 16-30); (c) determining the time of creation of the traffic log and its network entry and exit points (Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64); (d) determining a network path between the entry and exit points (Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64, column 7 lines 43-52); and (e) determining whether the node falls along the network path (column 7 lines 43-52).

23. Tams disclosed a method of monitoring packet traffic through a node of a packet-switched network using traffic logs, comprising the step of (d) updating the histogram file using at least the time of creation of the traffic log and at least one of the entry and exit points (Figures 8 and 10, column 35-65).

24. Regarding claim 15, Tams disclosed a method wherein the histogram file is a flat file (column 2 lines 16-30).

25. Regarding claim 16, Ennis disclosed a method wherein two histogram files are created, a first histogram being representative of traffic being passed towards a higher level of the network and a second histogram being representative of the traffic being passed towards a lower level of the network or outside the network (column 4 lines 45-59, column 7 lines 23-52).

26. Regarding claim 17, Ennis disclosed a method further comprising repeating steps (b) - (f) for at least a 24-hour period (column 4 lines 45-64, column 15 lines 31-45).

27. Regarding claim 18, Ennis and Tams combined disclose a method wherein the histogram plots packets per minute versus time (Ennis, Figures 11 and 13-16; Tams, column 3 lines 44-52).

28. Regarding claim 19, Ennis disclosed further comprising broadcasting, from a server computer, data representative of the histogram to a client computer (column 15 lines 31-45). Tams also disclosed this limitation (column 6 lines 39-45).

29. Regarding claim 20, Ennis disclosed wherein the network is a packet network [Mobitex network] (Title, Abstract). (Note: Mobitex technology is a well-known packet data network).

30. Regarding claim 21, Ennis disclosed further comprising displaying a histogram based on data in the histogram file (Figures 11 and 13-16, column 6 lines 9-37, column 17 lines 6-24).

31. Regarding claim 22, Ennis and Tams disclosed further comprising creating at least one histogram for each node of the network (Ennis, Figures 11 and 13-16, column 17 lines 25-53; Tams, Tables 1-4A).

32. Regarding claim 23, Ennis disclosed further comprising selecting for display the at least one histogram for a particular node (Figures 11 and 13-16, column 17 lines 24-53).

33. Regarding claim 24, Tams disclosed further comprising monitoring a central location of the network for new traffic logs (Figures 5-6 and 8, column 13 lines 19-42).

34. Regarding claim 25, Ennis disclosed a method of monitoring packet traffic passing through a link connecting two nodes of a packet-switched network using traffic logs comprising the steps of: (a) creating a histogram file for at least one link in the network (Figures 13-16, column 4 lines 45-64, column 5 lines 13-22); (b) storing a traffic log generated by the network (Figure 10, column 2 lines 16-30); (c) analyzing the traffic log to determine the time of creation of the traffic log and its network entry and exit points (Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64); (d) determining a network path between the entry and exit points, (e) determining whether the link falls along the network path (Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64, column 7 lines 43-52); (f) determining a number of bytes carried by the packet associated with the traffic log (column 1 lines 32-49, column 11 lines 47-67).

35. Tams disclosed a method of updating the histogram file using at least the time of creation of the traffic log and the number of bytes (Figures 8 and 10, column 35-65).

36. Regarding claims 26-36, the limitations are closely similar to the limitations of claims 15-24, and thus are rejected using the same rationale.

37. Regarding claim 37, Ennis and Tams combined disclose a method of monitoring the operations of a packet-switched network, the network automatically generating traffic logs when a packet enters or exits the network (Tams, column 13 lines 35-38), the method comprising the steps of, (a) detecting when new traffic logs are available at a network control center (Ennis, column 3 lines 41-67; Tams, Figures 5 and 8); (b) downloading the new traffic logs to a server computer (c) updating at least one histogram file using information available from the new traffic logs (Ennis, Figures 8 and 10, column 35-65); (d) deleting the new traffic logs (Tams, column 25 lines 35-49); and (e)

making the at least one histogram file available to a client computer (Ennis, column 15 lines 31-45).

38. Regarding claims 37-41, the limitations are closely similar to the limitations of claims 2-13 & 15-24, thus these claims are rejected using the same rationale.

39. Regarding claim 42, Tams disclosed a method wherein the updating step comprises incrementing a value in the histogram file (column 2 lines 42-59).

40. Regarding claim 43, Ennis and Tams combined disclose a method of analyzing the performance of a packet-switched network, the network automatically generating a traffic lot, each time a packet exits the network, each traffic log including at least the time the traffic log was created, the addresses of the packet sender and packet recipient, and the entry and exit network nodes (Ennis, column 3 lines 58-67, column 4 lines 45-64; Tams, Figure 5, Tables 1-2) the method comprising the steps of (a) collecting a plurality of traffic logs (Abstract, column 3 lines 41-67, column 4 lines 45-67, column 7 lines 22-41); and (b) automatically generating a plurality of histograms, each histogram being based on information gleaned from the plurality of traffic logs wherein at least one histogram is representative of packet traffic passing through a host connected to the network (Figures 11 and 13-16, column 4 lines 45-67, column 14 lines 1-33).

41. Regarding claims 44-48, the limitations are closely similar to the limitations of claims 2-3, 8, 12, and 33.

42. Regarding claims 49-59, the system corresponds directly to the method of claims 1-13, and thus these claims are rejected using the same rationale.

43. Regarding claims 60-68, the system corresponds directly to the method of claims 14-16 & 18-23, and thus these claims are rejected using the same rationale.

44. Regarding claims 69-77, the system corresponds directly to the method of claims 25-27 & 29-34, and thus these claims are rejected using the same rationale.

45. Regarding claims 78-83, the system corresponds directly to the method of claims 36-41, and thus these claims are rejected using the same rationale.

46. Regarding claims 84-87, the system corresponds directly to the method of claims 43 & 46-47, and thus these claims are rejected using the same rationale.

47. Since all the limitations of the claimed invention were disclosed by the combination of Ennis and Tams, claims 1-87 are rejected.

Conclusion

48. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Fletcher et al. (U.S. Patent Number 6,108,782) disclosed a distributed remote monitoring of network traffic and performance uses distributed nodes to collect traffic statistics in the network. These statistics are continuously updated and stored as simple text file. A management station or a display terminal enabled to receive and display graphical representation of the statistical data.

b. Schaffer (U.S. Patent Number 6,219,050) disclosed a user interface for analyzing and providing graphical representation of the behavior of packets in a packet trace with respect to time, source node, and destination node. A packet density graph which indicated in each time interval a number or percentage of packets of the packet trace transmitted during the time interval.

c. Salkintzis et al. ("Mobile Packet Data Technology: An Insight into Mobitex Architecture" IEEE 1997 - Refer to PTO-892 for complete citation)

disclosed some of the most important packet data networks namely, MOBITEX, ARDIS, and CDPD. Mobitex wireless networks have been widely accepted all over the world and Mobitex technology has became a true worldwide de factor standard.

49. Refer to the enclosed PTO-892 for details and complete listing of other pertinent prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (703) 305-4665. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (703) 305-9705. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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703-305-9705

tp
April 2, 2004

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